

REMARKS

1. Amendments to claim 21.

Independent claim 21 has been amended to better define the claimed invention. Support for these amendments may be found in Applicants' Specification on page 4, lines 1-16, page 8, lines 5-9, and page 9, lines 3-5.

2. Rejection of claims 21-39 under 35 U.S.C. §112, second paragraph.

Claims 21-39 have been rejected as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

First, the PTO has rejected the claims for use of the phrase "positionally isomeric" on the grounds that it is unclear what meaning or purpose is conveyed by this language.

The first sentence of the second paragraph of Section 112 is a requirement for precision and definiteness of claim language. If the scope of subject matter embraced by a claim is clear and if the applicant has not otherwise indicated that he intends the claim to be of a different scope, then the claim particularly points out and distinctly claims the subject matter that the applicant regards as his invention. *In re Borkowski et al.*, 164 U.S.P.Q. 642, (C.C.P.A. 1970).

Definiteness of claim language must be analyzed, not in a vacuum, but in light of (1) the content of the particular application disclosure, (2) the teachings of the prior art, and (3) the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made. See, e.g., *In re Marosi*, 710 F.2d 799, 218 U.S.P.Q. 289 (Fed. Cir. 1983); *Rosemount, Inc. v. Beckman Instruments, Inc.*, 727 F.2d 1540, 221 U.S.P.Q. 1

Whether a claim is invalid under the second paragraph of Section 112 requires a determination of whether those skilled in the art would understand what is claimed when the claim is read in light of the specification. *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 802 F.2d 1565, 1 U.S.P.Q.2d 1081 (Fed. Cir. 1986). As long as the scope of the claim, when read in light of the specification, is clear to one of ordinary skill in the art,

the definiteness requirement has been satisfied. *Slimfold Mfg. Co. v. Kinkead Indus.*, 810 F.2d 1113, 1 U.S.P.Q.2d 1563 (Fed. Cir. 1987).

In this case, it is respectfully submitted that one of skill in the art will understand the phrase 'positionally isomeric diethyloctanediol' when read in light of Applicants' Specification, particularly from line 18 of page 4 of the Specification to line 7 of page 7 of the Specification.

One of skill in the art reading this portion of the Specification will understand that a positionally isomeric diethyloctanediol has a linear C8 carbon chain, two ethyl groups and two hydroxyl groups. Moreover, one of skill in the art will also understand that the two ethyl groups may be placed in any one of the following substitution patterns: 2, 3; 2, 4; 2, 5; 2, 6; 2, 7; 3, 4; 3, 5; 3, 6; or 4, 5. Similarly, it will be understood that the two hydroxyl groups may be located on the C8 linear carbon chain in any one of the following substitution patterns, i.e., 1,2; 1,3; 1, 4; 1,5; 1,6; 1, 7; 1, 8; 2, 3; 2, 4; 2, 5; 2, 6; 2, 7; 2, 8; 3, 4; 3, 5; 3, 6; 3, 7; 3, 8; 4, 5; 4, 6; 4, 8; 5, 6; 5, 7; 5, 8; 6, 7; 6, 8; or 7, 8.

Claim 21 is not indefinite under 35 USC 112, 2nd paragraph because one of skill in the art will understand exactly which molecules are within the scope of the phrase 'positionally isomeric diethyloctanediol'.

Accordingly, reconsideration and removal of the rejection is respectfully requested.

Second, the PTO has asked that the species denoted by the language 'at least one of' be recited in the alternative, on the grounds that the language as claimed, could be interpreted to require the presence of all recited species.

Applicants appreciate the PTO's detailed review of the claims and have amended the claims as per the PTO's suggestion. Reconsideration and removal of the rejection is respectfully requested.

Third, the PTO has questioned how the phrase "and the form of crosslinked microparticles' relates to the rest of the claim in claim 30.

Claim 30 has been amended to indicate that 'crosslinked microparticle' is merely an additional type of structure that may be manifested in the reaction product. Reconsideration and removal of the rejection is respectfully requested.

Fourth, the PTO has indicated that it is unclear how 'decorative' or 'protective' further limit 'coating' in claim 34.

Claim 34 has been amended in accordance with the PTO's comments. Reconsideration and removal of the rejection is respectfully requested.

Finally, the PTO has noted that claim 38 appears to be either meaningless or incomplete.

Claims 38 and 39 have been canceled without prejudice. Reconsideration and removal of the rejection is respectfully requested.

3. **Rejection of claims 21, 22, 24, 27-31, and 33-39 under 35 U.S.C. §102(a) as being anticipated by Ott et al., (WO 00/15725), hereafter "Ott" or "725".**

Claims 21, 22, 24, 27-31, and 33-39 have been rejected on the grounds that the cited reference discloses coating compositions wherein diethyloctanediol is disclosed as a reactant, i.e., see page 15, line 10.

As a preliminary matter, the Undersigned notes that the cited reference does not appear to disclose a reaction product comprising at least two repeating units derived from a positionally isomeric diethyloctanediol monomer. It is noted that one of skill in the art will appreciate that the mere recitation of a component in a laundry list of ingredients does not indicate that a resulting reaction product contains at least two repeating units derived from that component.

Irregardless, the Undersigned expects that Applicants' foreign priority date renders the instant rejection moot. The PTO's acknowledgement of the receipt of the certified copies of the priority documents is appreciated.

The Undersigned is in the process of obtaining a translation of the certified priority document as requested by the PTO per MPEP 201.15 and 37 CFR 1.55 (a) (4). The requested translation and statement indicating that the translation is accurate will be filed as soon as they become available. It is expected that upon the filing of the translation, Applicants will be entitled to rely upon the priority date to overcome the cited reference.

4. **Rejection of claims 21-39 under 35 U.S.C. §102(b) as anticipated by DE 19826715, hereafter "DE '715".**

Claims 21-39 have been rejected on the grounds that the cited reference discloses coating compositions derived from 2,4-diethyloctane-1,5-diol

Applicants must respectfully disagree with the basis of rejection. In particular, it is respectfully submitted that the invention of amended claim 21 is not disclosed by the English abstract of the cited reference.

To constitute anticipation, all material elements of a claim must be found in one prior art source. *In re Marshall*, 198 U.S.P.Q. 344 (C.C.P.A. 1978). It is respectfully submitted that DE '715 fails to meet this standard.

For example, the English abstract of the cited reference indicates that the claimed reactive thinner results from the reaction of three components, i.e., 2,4-diethyloctane-1,5-diol or its derivatives; ethylene oxide or propylene oxide; and a reactive compound having up to 30 carbon atoms and an ethylenically unsaturated polymerizable group. The Examples on pages 4 and 5 of the German language patent DE 198 26 715 A1 appear to indicate that the disclosed reactive thinner is 2,4-diethyloktandiol-1,5-diacrylat (DEODDA). This molecule appears to contain only one unit resulting from a positional isomer of diethyloctanediol.

Thus, DE '715 fails to anticipate the invention of Applicants' amended independent claim 21 because it appears that the claimed reactive thinner of DE '715 lacks two or more repeating units derived from a positionally isomeric diethyloctanediol monomer. It is similarly noted that DE '715 also fails to disclose the inventions of dependent claims 40 and 41, which respectively require from 2 to 15 repeating units and more than 15 repeating units.

Reconsideration and removal of the rejection is therefore respectfully requested in view of the foregoing amendments and remarks.

5. **Rejection of claims 21, 22, 24, and 27-31 under 35 U.S.C. §102(b) as anticipated by National Distillers Products Corporation (GB 778924) hereafter "National Distillers" or "GB '924".**

Claims 21, 22, 24, and 27-31 have been rejected on the grounds that GB '924 discloses polymeric compounds produced from 3,6-diethyl-1,8-octanediol.

A rejection for anticipation under section 102 requires that each and every limitation of the claimed invention be disclosed in a single prior art reference. *In re Paulsen*, 31 U.S.P.Q.2d 1671 (Fed Cir. 1994).

In this case, the invention of amended independent claim 21 requires a reaction product comprising two or more repeating units derived from a positionally isomeric diethyloctanediol and having a molecular weight polydispersity Mw/Mn of from 1.1 to 20.

GB '924 is silent as to the need to have a specific reaction product having at least two repeating units derived from a positionally isomeric diethyloctanediol and a specific polydispersity.

Moreover, it is respectfully submitted that the disclosure on page 4, lines 75-84 is not entirely clear. For example, it is not clear which glycol products are meant to be useful in the synthesis of drying oil types of polyesters. It is noted that most of the 'glycol products' disclosed in GB '924 are outside the scope of Applicants' claimed invention, including all products within the scope of the formula set forth on page 1 and claim 1 of GB '924, given that R₄ must be an alkenyl. Indeed, the sentence at lines 79-84 appears to indicate that only nonhydrogenated glycols are intended to be used in the synthesis of 'drying oil' types of polyesters, i.e., see lines 53-58. Such nonhydrogenated glycols do not appear to encompass Applicants' positionally isomeric diethyloctanediols.

As a result, it is respectfully submitted that GB '924 fails to anticipate the invention of Applicants' amended independent claim 21. Reconsideration and removal of the rejection is respectfully requested.

6. **Rejection of claims 21-39 under 35 U.S.C. §102(a) as anticipated by Bartol et al., (EP 0940459 (A2,A3)), hereafter "Bartol" or "EP '459".**

Claims 21-39 have been rejected on the grounds that the cited reference discloses coating compositions and adhesive compositions derived from various diethyloctanediols, including 2,4-diethyloctane-1,5-diol. See page 2 and claims.

Applicants must respectfully disagree. A review of the Examples on page 9 appears to indicate that the diethyl-octandiol is used as a type of 'cold add' in Komponente II of a two component polyurethane. That is, the diethyl-octandiol does not

appear to undergo polymerization to form a reaction product having two or more repeating units resulting from the polymerization of the diethyl-octandiol.

To constitute anticipation, all material elements of a claim must be found in one prior art source. *In re Marshall*, 198 U.S.P.Q. 344 (C.C.P.A. 1978). It is respectfully submitted that EP '459 fails to meet this standard.

Reconsideration and removal of the rejection is therefore respectfully requested in view of the foregoing amendments and remarks.

Irregardless, the Undersigned expects that Applicants' foreign priority date renders the instant rejection moot. The PTO's acknowledgement of the receipt of the certified copies of the priority documents is appreciated.

The Undersigned is in the process of obtaining a translation of the certified priority document as requested by the PTO per MPEP 201.15 and 37 CFR 1.55 (a) (4). The requested translation and statement indicating that the translation is accurate will be filed as soon as they become available. It is expected that upon the filing of the translation, Applicants will be entitled to rely upon the priority date to overcome the cited reference.

7. Rejection of claims 21-39 under 35 U.S.C. §103(a) as unpatentable over Ott et al., (WO 00/15725), hereafter "Ott" or "725", or DE 19826715 , hereafter "DE '715", or National Distillers Products Corporation (GB 778924) hereafter "National Distillers" or "GB '924", or Bartol et al., (EP 0940459 (A2,A3)), hereafter "Bartol" or "EP '459".

It is the PTO's position that it would have been obvious to utilize any isomer of diethyloctanediol in the production of polymers, based upon a teaching of the individually cited references. In support of this position, the PTO notes that it has been held in *Norris* that a compound that is isomeric with a compound of the prior art is unpatentable unless it possesses some unobvious or unexpected beneficial property not possessed by the prior art compound.

Applicants appreciate the detailed basis of rejection but must respectfully disagree.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the

reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. MPEP 2143.

This standard is not met with any of the above individually cited references.

The *Norris* holding cited by the PTO is not on point. Applicants are not attempting to claim the various positional isomers of diethyloctanediol. Rather, as indicated in Applicants' amended claim 21, Applicants are claiming a specific reaction product that has (1) two or more repeating units derived from a positionally isomeric diethyloctanediol monomer and (2) a molecular weight polydispersity M_w/M_n of from 1.1 to 20. The *Norris* case is thus distinguishable from the instant fact pattern.

Indeed, the crucial factor is what effect such obviousness of structure has upon the obviousness of the subject matter as a whole, since structural obviousness alone is not a bar under 35 U.S.C. §103 to the grant of a patent on a chemical compound.

Comr. Pats. v. Deutsche Gold-und-Silber, etc. 157 U.S.P.Q. 549 (C.A.D.C. 1968). A *prima facie* case of obviousness based on structure exists if the prior art suggests to one of ordinary skill in the art to make the substitution or modification. *In re Taborsky*, 183 U.S.P.Q. 50 (C.C.P.A. 1974).

In this case, it is respectfully submitted that two of the cited prior art references appear to focus only on specific molecules, i.e., 3,6-diethyl-1,8-octanediol in GB '924; 2,4-diethyloctane-1,5-diol in DE '715. Given that those of skill in the art recognize that different structures may have differing reactivities and rates of reaction, it is not obvious to treat all positional isomers equivalently as monomers used to obtain repeating units in a reaction product. Accordingly, it is respectfully that the individually cited references fail to provide a *prima facie* case of structural obviousness with respect to the claimed invention of amended claim 21.

In addition, as noted above in Sections 3, 4, 5, and 6, hereby incorporated in their entirety, each of the cited references fails to disclose Applicants' requirement of a reaction product comprising two or more repeating units. No additional references have been cited by the PTO to correct these identified deficiencies. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 180 USPQ 580 (C.C.P.A. 1974); MPEP

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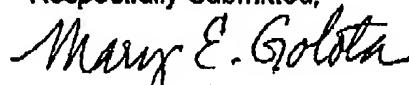
Finally, nothing in any of the individually cited references provides the motivation to require Applicants' specific reaction product having a particular polydispersity. The prior art must provide one of ordinary skill in the art the motivation to make the proposed molecular modifications needed to arrive at the claimed compound. *In re Laiu*, 223 U.S.P.Q. 1257 (Fed. Cir. 1984).

In the absence of any motivation to do what Applicants have done, it is respectfully submitted that each of the individually cited references fails to provide a *prima facie* case of obviousness. Reconsideration and removal of the rejections is respectfully requested.

CONCLUSION

Applicant(s) respectfully submit that the Application and pending claims are patentable in view of the foregoing amendments and/or remarks. A Notice of Allowance is respectfully requested. As always, the Examiner is encouraged to contact the Undersigned by telephone if direct conversation would be helpful.

Respectfully Submitted,



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